(a)

(b)

(c)

(d)

Fig. 12.21. A Wavelet Tour of Signal Processing, 3$^{\rm rd}$ ed. (a): Original image f. (b): Noisy image $y = f + w$ (SNR = 12.5 db). (c): Translation invariant wavelet denoising, (SNR = 18.6 db). (d): Basis pursuit denoising in a dictionary which is a union of a translaton invariant wavelet frame and a frame of redundant local cosine vectors (SNR = 19.8 db).